



Attorney/Docket No.: 34003.31
Customer No. 27683

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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|-------------|--------------------------------|---|-------------|------------------|
| Applicant: | Wayne A. Weimer | § | Docket No.: | 34003.31 |
| | | § | | |
| Serial No.: | 10/706,735 | § | Examiner: | To Be Determined |
| | | § | | |
| Filed: | November 12, 2003 | § | Art Unit: | 1743 |
| | | § | | |
| Entitled: | Systems and Methods for | § | | |
| | Detection of Low Concentration | § | | |
| | of Molecules Using Surface | § | | |
| | Enhanced Raman Spectroscopy | § | | |

INFORMATION DISCLOSURE STATEMENT

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty of disclosure under 37 CFR §1.56, and in accordance with the practice under 37 CFR §1.97 and §1.98, the Examiner's attention is directed to the documents listed on the enclosed modified Form PTO-1449. No inference should be made that the cited references are in fact material, are in fact prior art, or that no better art exists. The cited patents are listed in numerical and alphabetical order and are not in any order based on their pertinence.

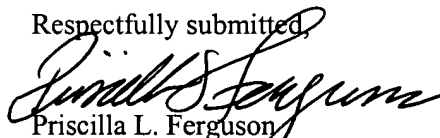
The above-identified application was filed after June 30, 2003. Therefore, pursuant to the waiver of the requirement under 37 CFR 1.98 (a)(2)(i) as stated in a Pre-OG Notice dated July 11, 2003, copies of the U.S. patents listed on the enclosed modified Form PTO-1449 are not being provided.

This Information Disclosure Statement is being filed within three months of the United States filing date or before the mailing date of a first Office Action on the merits. No certification or fee is required (37 CFR §1.97(b)).

Applicant believes no fee is due. However, the Commissioner is hereby authorized to charge any deficiency fees or credit any overpayments associated with this communication to Deposit Account 08-1394 of Haynes and Boone, LLP.

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be returned indicating that such information has been considered.

Respectfully submitted,


Priscilla L. Ferguson
Registration No. 42,531

Date: March 15, 2004

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D-1219877_1.DOC

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

SANDRA KUBIN

Name

Date

March 15, 2004
Sandra Kubin



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| In place of PTO Form 149 | | U. S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE | | Complete if Known | |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i> | | | | Application Number | 10/706,735 |
| | | | | Filing Date | November 12, 2003 |
| | | | | Applicant(s) | Wayne A. Weimer |
| | | | | Art Unit | 1743 |
| | | | | Examiner Name | To Be Determined |
| SHEET | 1 | OF | 2 | Attorney Docket Number | 34003.31 |

| U. S. PATENT DOCUMENTS | | | | |
|------------------------|----------|-----------------|--------------------------------|---|
| Examiner's Initials | Cite No. | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document |
| | AA | 5,567,628 | 10-22-1996 | Tarcha, et al. |
| | AB | 5,609,907 | 03-11-1997 | Natan |
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| | AE | 6,025,202 | 02-15-2000 | Natan |
| | AF | 6,608,716 | 08-19-2003 | Armstrong, et al. |

| FOREIGN PATENT DOCUMENTS | | | | | |
|--------------------------|----------|---|--------------------------------|---|--------------------|
| Examiner's Initials | Cite No. | Foreign Patent Document (Country Code - Number - Kind) | Publication Date MM-DD-YYYY | Patentee or Applicant of Cited Document | Translation Y/N |
| | AG | WO 98/04902 | 02-05-1998 | The University of Oregon, et al. | |

| OTHER PRIOR ART | | |
|---------------------|----------|---|
| Examiner's Initials | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article, title of the item, date, page(s), volume-issue number(s), publisher, city/country where published |
| | AH | Campion, Alan, et al., "Surface-Enhanced Raman Scattering", Chemical Society Reviews, Vol. 27, 1998, pp. 241-250. |
| | AI | Gotschy, W., et al., "Thin Films by Regular Patterns of Metal Nanoparticles: Tailoring the Optical Properties by Nanodesign", Applied Physics B, 1996, pp. 381-384. |
| | AJ | Haynes, Christy L., et al., "Nanosphere Lithography: A Versatile Nanofabrication Tool for Studies of Size-Dependent Nanoparticle Optics", J. Phys. Chem. B, Vol. 105, No. 24, 2001, pp. 5599-5611. |
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| | AO | Kim, W., et al., "Fractals in Microcavities: Giant Coupled, Multiplicative Enhancement of Optical Responses", Physical Review Letters, Vol. 82, Issue 24, June 14, 1999, pp. 4811-4814. |
| | AP | Kneipp, Katrin, et al., "Single Molecule Detection Using Surface-Enhanced Raman Scattering (SERS)", Physical Review Letters, Vol. 78, No. 9, March 3, 1997, pp. 1667-1670. |

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| Examiner Signature | | Date Considered | |
|--------------------|--|-----------------|--|

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

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| U. S. PATENT DOCUMENTS | | | | |
|------------------------|-------------|-----------------|--------------------------------|---|
| Examiner's Initials | Cite No. | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document |
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| FOREIGN PATENT DOCUMENTS | | | | | |
|--------------------------|-------------|---|--------------------------------|--|--------------------|
| Examiner's Initials | Cite No. | Foreign Patent Document (Country Code - Number - Kind) | Publication Date MM-DD-YYYY | Patentee or Applicant of Cited Document | Translation Y/N |
| | | | | | |

| OTHER PRIOR ART | | |
|------------------------|-------------|--|
| Examiner's Initials | Cite No. | Include name of the author (in CAPITAL LETTERS); title of the article, title of the item, date, page(s), volume- issue number(s), publisher, city/country where published |
| | AQ | Levlin, M., et al., "Evaporation of Gold Thin Films on Mica: Effect of Evaporation Parameters", Applied Surface Science 115, 1997, pp. 31-38 |
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| | AS | Link, Stephan, et al., "Shape and Size Dependence of Radiative, Non-Radiative and Photothermal Properties of Gold Nanocrystals", Int. Reviews in Physical Chemistry, Vol. 19, No. 3, 2000, pp. 409-453. |
| | AT | Malinsky, Michelle Duval, et al., "Chain Length Dependence and Sensing Capabilities of the Localized Surface Plasmon Resonance of Silver Nanoparticles Chemically Modified with Alkanethiol Self-Assembled Monolayers", J. Am. Chem. Soc., Vol. 123, No. 7, 2001, pp. 1471-1482. |
| | AU | Malinsky, Michelle Duval, et al., "Nanosphere Lithography: Effect of Substrate on the Localized Surface Plasmon Resonance Spectrum of Silver Nanoparticles", J. Phys. Chem. B., Vol. 105, No. 12, 2001, pp. 2343-2350. |
| | AV | Mulvaney, Shawn P., et al., "Raman Spectroscopy", Analytical Chemistry, Vol. 72, No. 12, June 15, 2000, pp. 145R-157R. |
| | AW | Nie, Shuming, et al., "Probing Single Molecules and Single Nanoparticles by Surface-Enhanced Raman Scattering", Science, Vol. 275, February 21, 1997, pp. 1102-1106. |
| | AX | Schlegel, Vicki L., et al., "Silver-Island Films as Substrates for Enhanced Raman Scattering: Effect of Deposition Rate on Intensity", Analytical Chemistry, Vol. 63, No. 3, February 1, 1991, pp. 241-247. |
| | AY | Van Duyne, R. P., et al., "Atomic Force Microscopy and Surface-Enhanced Raman Spectroscopy. I. Ag Island Films and Ag Film Over Polymer Nanosphere Surfaces Supported on Glass", J. Chem. Phys., Vol. 99, No. 3, August 1, 1993, pp. 2101-2115. |
| | AZ | Weimer, W. A., et al., "Tunable Surface Plasmon Resonance Silver Films", Applied Physics Letters, Vol. 79, No. 19, November 5, 2001, pp. 3164-3166. |

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|-----------------------|--|--------------------|--|
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